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The FlexiCoat System is an inline programmable 3-axis small footprint platform that is ideal for practically any spray coating application that requires precise deposition. This system employs robust ball screw slides driven by servo motors. Any Sono-Tek nozzle can be integrated. Spray patterns are easily shaped, ranging from 2 - 153 mm (0.01 - 6") wide. A variety of integrated liquid delivery options are available with a wide range of flow rate capabilities, depending on system configuration.

## The FlexiCoat system has many benefits and integrated features:

### **BENEFITS**

- Up to 80% reduction in material consumption
- Reduced wasteful overspray and atmospheric contamination
- · Minimal servicing and downtime
- · Self-cleaning ultrasonic nozzle prevents clogging
- · Highly controllable spray produces reliable, consistent results
- · Low-velocity delivery will not harm or disturb components
- · Small footprint platform minimizes floor space required
- · Controllable drop size enables customization of coating morphology

#### **FEATURES**

- Windows®-based programming software
- Teach pendant with trackball for easy axis motion and programming
- · Offline programming capabilities
- 500 x 500 x 100 mm (19.69 x 19.69 x 3.94") range of motion
- Programmable three-axis coordinated motion via precision servo motors
- Non-volatile memory for storage of up to 30 programs
- · Nozzles can be easily interchanged
- Wide range of delivery rates from .02 ml/min and up
- · Ideal for flat or odd-shaped substrates
- Available with SMEMA conveyor for inline process
- Exhaust sensor

### Optional Equipment:

Contact Heat and/or Vacuum Plate

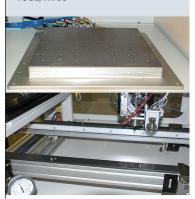
Ultrasonic Dispersion Pump for keeping suspensions evenly dispersed during coating process

MicroFlow Recirculation Pump for precise dispense of suspensions at very low flow rates

Camera - Passive or Active Vision (fiducial recognition)

Laser Pointer

Rotational 4th Axis - for coating rods/wires













ISO CERTIFIED

**SONO•TEK Corporation** 

# FlexiCoat™ Programmable Coating System Specifications

Work Area: 500 x 500 x 100 mm (19.69 x 19.69 x 3.94 in)

\*NOTE: Coating area may be reduced depending on nozzle configuration, options and accessories

Repeatability:  $\pm$  0.04 mm (0.0016 in)

Resolution:  $\pm$  0.005 mm (0.002 in)

Motor: Servo

Drive Mechanism: Ball screw drive

Work Payload: 11.4 kg (25 lbs.)

Inputs/Outputs: 52

Software Control: Pathmaster®

Windows-based

Power: 120V, 220V, ±10%, 50-60Hz

Air: 80 PSI dry unlubricated air

Exhaust: 150-200+ cfm (4248-5663+ lpm) -

customer supplied

Conveyor Speed: Programmable up to

24.38 m / min (80 ft / min)

Conveyor Capability: SMEMA

Conveyor Process Flow: Programmable

right to left or left to right

Conveyor Edge Clearance: SMEMA

standard 0.185 in

Belt Conveyor Weight Limit: 11 kg (5 lbs.)

Chain Conveyor Weight Limit: 33 kg (15 lbs.)

Floor Space Required:

100" W x 100" H x 110" D

2540 mm W x 2540 mm H x 2794 mm D

Certification: CE certified

Options:

Heat plate temp: Up to 250°C

Vacuum plate: 4 zones, user

controlled

Camera:

Adiustable (Passive Vision or viewing area Active with fiducial

recognition)

Laser pointer

4th Axis: Rotational

Dimensions:

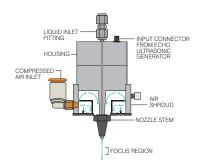
869 mm W x 1952 mm H x 1137 mm D

34.2" W x 76.9" H x 44.8" D

Sono-Tek ultrasonic nozzles can create a variety of precise spray patterns:

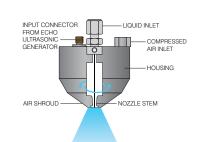
The AccuMist™ nozzle creates a narrow, slightly bow-shaped spray pattern.

Pattern width adjustable from 0.070 - 0.250" (1.778 - 6.35 mm).



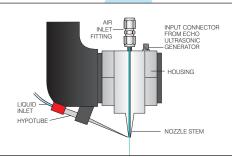
The Vortex nozzle produces a wide, conical spray pattern.

Pattern width adjustable from 2 - 4" (50 - 102 mm) in diameter.



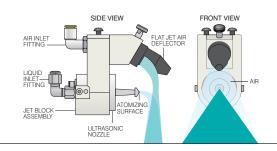
The MicroMist™ nozzle creates a very narrow, cylindrical spray pattern.

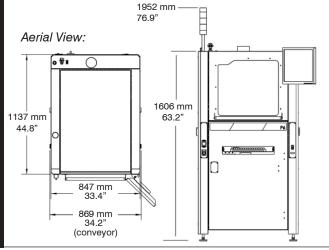
Pattern width adjustable from 0.010 - 0.030" (0.26 - 0.77 mm).



The Impact nozzle creates a wide, fan-shaped spray pattern.

Pattern width adjustable from 2 - 6" (50 - 150 mm).





Sono-Tek Laboratory Services

Sono-Tek's in-house laboratory services offer the expertise of our engineering and technical staff in resolving process issues and tailoring our technology to meet the needs of our customers.

# SONO • TEK Corporation leadership through innovation

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